

Serial No. 09/512,822

NIT-185

REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-12 and 20-27 are pending.

A new title has been provided as required by the Examiner.

Claim 2 was rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner finds that the specification does not disclose that "a third beam monitors the quantity of light from the first or second laser light."

Respectfully, the Examiner misinterprets the scope of the passage noted in claim 2. Literally, the noted passage recites, "a third beam for monitoring the quantity of light emitted from the first or the second laser light source." The third beam is one of three beams originating as emissions from the first and second laser light sources, and which are reflected back after emission from the light sources. In particular, the first beam is used for obtaining the out-of-focus detection signal, the second beam is used for obtaining the tracking error detection signal and information reproduction signal, and the third beam is used for monitoring

Serial No. 09/512,822

NIT-185

the quantity of light emitted from the first or the second laser light source. In a preferred embodiment illustrated in Figure 6B, the third light beam is reflected from a reflecting surface 45 on an inner side of the glass cover 44 which seals the semiconductor substrate. See the specification at page 14, line 16 through page 15, line 9. Thus, claim 2 does not recite that the third beam "monitors" the quantity of light, but that the third beam is used for "monitoring" the quantity of light. In other words, the noted passage is not intended to invoke the sixth paragraph of § 112.

For these reasons, the Applicants also ask for reconsideration of the rejection of claim 2 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3-7, and 10-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nemoto U.S. Patent No. 6,314,063 (Nemoto) in view of Ishihara U.S. Patent No. 5,978,404 (Ishihara) and Kume U.S. Patent No. 5,727,111 (Kume). The Applicants traverse as follows.

The invention is primarily directed to reducing the number of components in an optical head, and providing a single optical path for a plurality of lasers. Thus, the

Serial No. 09/512,822

NIT-185

invention reduces the size and thickness of the known optical disc apparatus and optical head used therein.

The primary reference to Nemoto teaches an integrated light emitting and receiving device with an optical pick-up.

The Applicants particularly note the feature of the present invention, in which a mirror is provided in a recess in a substrate, whereby first and second laser light sources mounted in the recess provide respective laser light beams which are reflected by the mirror and output from the device. None of the applied references teaches this feature of the invention. Nemoto shows a prism 8 formed on a substrate 4 on which a photodiode 11 and a laserdiode 10 formed thereon are also formed. Ishihara teaches a reflective mirror member 13 or reflective surface 113 attached to a substrate 2 on which semiconductor laser chips 4 and 5 are mounted via a submount 3 provided above the substrate surface 2a. Kume teaches a semiconductor laser built on a semiconductor substrate which is itself formed on a first semiconductor substrate, with a reflecting surface provided at the inner surface of a cover, and a microprism provided on the first semiconductor substrate. Thus, one sees that none of the applied references teaches the claimed mount of a mirror and laser sources in a recess.

Serial No. 09/512,822

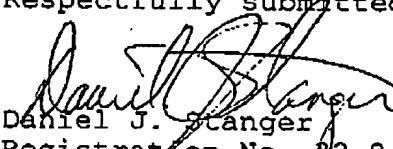
NIT-185

Claims 8-9 and 21-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nemoto, Ishihara, and Kume as applied to claims 1, 3-7, and 10-12 above and further in view of Kawachi et al U.S. Patent No. 4,750,799 (Kawachi).

Nemoto, Ishihara, and Kume have been distinguished above. The additional reference to Kawachi teaches a hybrid optical integrated circuit in which an optical waveguide 2 and other optical devices are optically coupled to each other on the same substrate. However, Kawachi also does not teach the claimed mirror and laser source mounting in a substrate recess, as discussed above. Therefore, even in combination with each other, the prior art references applied by the Examiner do not teach the claimed invention.

In view of the foregoing remarks and amendments, Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,


Daniel J. Stanger
Registration No. 92,846
Attorney for Applicants

MATTINGLY, STANGER & MALUR
1800 Diagonal Road, Suite 370
Alexandria, Virginia 22314
Telephone: (703) 684-1120
Facsimile: (703) 684-1157
Date: September 17, 2003

RECEIVED
CENTRAL FAX CENTER
SEP 22 2003

OFFICIAL